

EXHIBIT 24

**The National Collegiate
Athletic Association**

A Study in Cartel Behavior

Arthur A. Fleisher III

Brian L. Goff

and

Robert D. Tollison

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FIVE

NCAA Enforcement

The preceding chapters provide a theoretical, historical, and descriptive discussion of the NCAA as a cartel. In this chapter some of the testable implications of viewing the NCAA as a cartel are pursued. In particular, this chapter focuses on the NCAA enforcement process. Though most economists accept the idea that the NCAA functions as a monopsony, explicit analyses of the enforcement process have been lacking. That is, which schools are investigated and put on probation and why?

The theoretical model of enforcement presented in chapter 2 guides the empirical study in this chapter. The model stresses the indirect and probabilistic ways in which cheating on the cartel is detected. Direct and constant surveillance of member schools and their associates is prohibitively costly for the NCAA. To avoid such costs, the NCAA investigative and enforcement staff will use easily observable variables, such as variability in winning percentage, to guide its enforcement decisions. It will also rely upon reports by competitor schools as a basis for determining whether an enforcement action is justified. To put it plainly, when a team has not won the conference championship in several years and suddenly improves its record and wins, the school becomes a suspect for recruiting violations and eventual NCAA probation. Evidence of this behavior is presented in this chapter. Also considered is the redistribution that is a by-product of such an enforcement strategy (the protection of perennial athletic powers, which have large brand-name and physical asset advantages in the marketplace for college athletics).

This empirical study of the enforcement process proceeds as follows. Section 1 discusses the theoretical model and the in-

stitutional setting of enforcement in more detail. A few of the points already covered in the earlier chapters which are important for the discussion of enforcement are briefly reviewed. Section 2 develops and tests a logit model of NCAA enforcement actions. Data from almost eighty schools over a thirty-year period are pooled to form a large cross-section study. In addition to the logit analysis, the experiences of "convicted" schools over time are examined. For example, do enforcement actions significantly alter win-and-loss records of the "convicted" teams during their postprobation periods, and do offenders become repeat targets of enforcement? Section 3 offers some concluding remarks.

1. NCAA Enforcement: Theory and Practice

The basic problem in any cartel is the incentive that exists for individual firms to cheat on the agreement. The NCAA is no exception in this regard; individual coaches, alumni, and schools stand to benefit from violating the NCAA agreement while other schools adhere to it. Winning coaches are wealthier coaches. Higher winning percentages are a signal of higher-quality coaching and raise the coach's opportunity wage in the market for coaches. Winning schools are wealthier schools. The most successful football teams are the ones drawing more fans to the stadium and generating additional revenues from regular season television appearances and from invitations to postseason bowl games. A school may receive increased financial support from public and private sources as a result of increased exposure from a nationally ranked football program. The quality of students who apply for admission to winning schools may improve (McCormick and Tinsley 1987). Alumni are happier when their alma mater wins on the gridiron. These rewards provide incentives for coaches, schools, and alumni to offer recruits wages above those set by the cartel as a whole. Any one school can gain an advantage over its competitors by attracting higher-quality athletes with the offer of wages above those paid by other cartel members. In deciding whether or not to engage in such behavior, the agents involved in recruiting athletes will balance the expected gains from violating the agreement against the sanctions imposed if they are caught times the probability of detection.

In order to make the sanctions a viable threat to potential violators and to reduce the profitability of cheating, a cartel must be able to detect violators. The NCAA Committee on Infractions polices the recruitment process and tries to detect illegal activities and to enforce the monopsonistic wage rules. However, the enforcement staff of the NCAA is small compared with the size of the cartel it polices. In 1988, the enforcement and compliance services staff consisted of twenty-eight employees; there are over one thousand institutions in the NCAA (*NCAA Annual Report 1987-88*, p. 21). Thus, member institutions must play the basic role in the detection of cartel violations; they must monitor each other for signs of illegal activity.¹ The Committee on Infractions then investigates the allegations brought before it, assesses the extent of violations, and levies penalties.

One method that individual cartel members can use to discourage cheating is to monitor the activities of other schools directly. Direct monitoring reduces the ability of schools to offer illegal inducements to recruits and players without detection. Such evidence may exist in the form of canceled checks, cosigned loans, travel accounts, letters, and so on, but this evidence is difficult and costly to find. Complete direct monitoring of a rival's recruiting practices would require constant surveillance of its coaches and alumni as they attempt to recruit potential players. Because this is prohibitively costly, schools will seek more efficient methods to monitor rivals' recruiting behavior.

More generally, as Stigler (1964) discusses, cartels will use probabilistic or indirect evidence to spot firms that are violating the cartel agreement. In the case of secret price cutting, no direct evidence will exist about cheating, so cartel members will resort to the use of probabilistic evidence. Similarly, NCAA cartel members will use probabilistic or indirect evidence as a guide to the amount of cheating being done by their rivals. In a word, NCAA members and the Committee on Infractions will monitor outputs rather than inputs (Alchian and Demsetz 1972).

1. The attorney for Mississippi State University, Erwin Wards, made this point during the 1978 congressional hearings.

Perhaps the best indirect evidence of illegal payments to players is a team's competitive performance. Certain aspects of a team's performance offer probabilistic evidence of violations. For example, the variability of a team's won-loss record provides indirect evidence of their compensation practices. A perennial break-even team that begins consistently to attract higher-quality athletes and to produce a winning record will cause rivals to infer illegal practices (higher wage rates). The rivals will initiate an investigation by the Committee on Infractions (or the committee itself may choose to investigate) of whether violations are being committed.

A related method of cartel enforcement resides in the recruitment process. Suppose two schools are bidding for an athlete. The loser knows that it was outbid, and thus it can turn in its rival to the NCAA. Greater success in recruiting can thus lead to increased scrutiny by the cartel. This method of cartel enforcement is closely related to the output monitoring hypothesis for a simple reason: there is a link between recruiting and winning. Success in the recruiting wars will reveal itself on the playing field. It seems clear, therefore, that winning variance proxies recruiting variance.

Returning to the winning variance argument for a moment, note that, for the hypothesis to hold strictly, upward and downward movements in winning percentage must lead to an increased propensity to enforcement and probation. It would seem that the theory only admits of an improvement hypothesis; that is, teams start to improve by making illegal payments that, if detected, would ultimately lead to probation. Nevertheless, the hypothesis can also be consistent with a decline in winning percentage. The enforcement process may be sufficiently slow as to lead, for example, to public revelations of violations prior to sanctions and probation. In the interim a team may halt the illegal payments as a way of showing "good-faith" efforts to correct the violations and start to lose more games as the quality of its inputs declines.² On this interpre-

2. In 1985, for instance, Texas Christian University unilaterally disclosed evidence that some of its athletes had received illegal payments and dismissed these players in mid-season. The team's record during its remaining games was dismal. At the end of the season, the school was placed on probation by the NCAA.

tation, variance of winning percentage is the appropriate predictor of cartel enforcement activities.

This enforcement process leads to redistribution within the cartel in the sense that NCAA enforcement will concentrate on schools that are consistent winners. The NCAA redistributes wealth by punishing up and coming teams that recruit players away from traditional winners. If this is the case, consistently higher winning percentages will not by themselves bring about higher probabilities of enforcement action. Thus, the NCAA functions, at least in effect, as an agent for major college athletic programs with long histories of fielding winning teams.

2. Empirical Tests

A Logit Analysis of Enforcement Actions

As an initial test of the hypothesis of output monitoring among NCAA members, a testable model of NCAA enforcement is presented. First, the general *ceteris paribus* conditions that, along with winning variability, are expected to influence the probability of enforcement are identified. The following general model presents these factors:

$$\text{prob[ENFORCEMENT]} = f(\text{winning variability; other probabilistic variables; direct monitoring costs; amount of cheating}).$$

The role of winning variability has already been discussed; however, this may not be the only indirect, probabilistic means from which to infer cheating. Also, the costs of direct monitoring in a given situation will influence the likelihood of enforcement. For a given amount of cheating by a school, lower direct monitoring costs make the job of detection for member schools and the NCAA staff easier. An enforcement action is more likely, given some amount of cheating, as detection costs fall. Finally, the more a school cheats (or, as a first approximation, the demand for cheating), the more likely that cheating will be detected. Our winning variability model of enforcement does not imply that all schools cheat to the same extent. Certainly, some schools' alumni, coaches, and fans have a relatively more voracious appetite for winning and fewer scruples about cheating to gain such an end.

The following model is posited as a testable expression of this general enforcement model (all data are for 1953-83 unless otherwise specified):

$$\text{ENFORCEMENT} = b_0 + b_1 \text{CV} + b_2 \text{CV}^2 + b_3 \text{DC} + b_4 \text{SCPOP} + b_5 \text{AGE} + b_6 \text{STAD}, \quad (1)$$

where

ENFORCEMENT = 1 if a school's football program has been put on probation and 0 otherwise;

CV = the coefficient of variation of a school's football winning percentage;

CV² = the coefficient of variation squared;

DC = the interaction of DCONF and CCHAM, where DCONF equals 1 if a team has switched conferences and 0 otherwise, and where CCHAM is equal to the number of conference championships won by the school (before or after a switch);

SCPOP = the average number of secondary schools in the state of each institution in 1960, 1970, and 1980, divided by the population of the state in the same years;

AGE = the founding date of each school; and

STAD = the size of a school's football stadium, averaged over 1960, 1970, and 1980.

The dependent variable ENFORCEMENT designates whether a school's football program was placed on probation over the 1953-83 period.³ Table 16 lists the eighty-five schools

3. The basic data source is U.S. House of Representatives (1978). We supplemented these data for the 1978-83 period with information from various United Press International (UPI) polls identifying teams which have been placed on NCAA probation (see *Washington Post* 1978-83, various issues). For

TABLE 16
NCAA Football Enforcement Actions, 1953-83

No Probation	No Probation	Probation
Air Force	North Carolina State	Arizona
Alabama	Northwestern	Arizona State
Arkansas	Notre Dame	Auburn
Army	Ohio State	California
Baylor	Oregon State	Clemson
Boston College	Penn State	Colorado
Brigham Young	Pittsburgh	Houston
Cincinnati	Purdue	Illinois
Colorado State	Rice	Kansas
Duke	Rutgers	Kansas State
East Carolina	Stanford	Kentucky
Florida	Syracuse	Miami (FL)
Florida State	Temple	Michigan State
Georgia	Tennessee	Minnesota
Georgia Tech	Texas	Mississippi State
Indiana	Texas-El Paso	Oklahoma
Iowa	Texas Christian	Oklahoma State
Iowa State	Texas Tech	Oregon
Louisiana State	Tulane	South Carolina
Louisville	UCLA	Southern California
Maryland	Utah	Southern Methodist
Memphis State	Utah State	Southern Mississippi
Michigan	Vanderbilt	Texas A&M
Mississippi	Virginia	Tulsa
Missouri	Virginia Tech	Wyoming
Navy	Wake Forest	
Nebraska	Washington	
New Mexico	Washington State	
New Mexico State	West Virginia	
North Carolina	Wisconsin	

Sources: U.S. House of Representatives, "NCAA Enforcement Program," Hearings before the Subcommittee on Oversight and Investigations of the Committee on Interstate and Foreign Commerce, 96th Congress (1978, pp. 1480-1520), and *Washington Post* (1978-83, various issues).

the 1953-78 period, teams were defined as violators if their football programs were placed on probation and if the probation included television sanctions. For 1978-83, the violators were those schools identified by the UPI poll.

in our sample, classifying them in terms of whether or not they have had major sanctions levied against them.⁴

The difficulty of the authors of the present volume in finding data on enforcement is suggestive in itself. Like any cartel, the NCAA maintains secrecy with regard to its enforcement strategy. This is evidenced by what happened during the 1978 U.S. House of Representative hearings. The subcommittee chairman, John Moss, and Walter Byers, then executive director of the NCAA, engaged in a heated correspondence over the disclosure of documents. Representative Moss, when opening the hearings, commented on the difficulty encountered by congressional staff members in getting documents when he said "People are afraid of being perceived or perhaps misperceived as cooperating with this subcommittee." He accused Byers of feeding documents at his own pace and of organizing noncompliance among schools and opposition by other congressmen. The authors of the present volume attempted to obtain a list of enforcement actions from the NCAA. Although this information is widely publicized at the time of imposition of sanctions, the NCAA refused our request.

CV measures the variability of each school's winning percentage. (The mean winning percentages, standard deviations, and coefficients of variation for each school are listed in appendix 1 of this volume.) CV is a measure of output variability which provides indirect information about a school's compensation practices. Cartel theory suggests that a higher variability of winning percentage will raise the probability of investigation and probation. For example, take two rival teams, Western U. and Eastern U. If Western U. has a very low winning percentage for several years and then suddenly has a championship team, it is likely that Eastern U. will alert the Committee on Infractions to possible violations. Teams that compete for players will turn in teams with upwardly mobile winning records. As discussed earlier, the enforcement process may hit the violator as its

4. The data set was restricted to schools which play in major conferences and to major independent schools, that is, to cases where cartel monitoring and potential cheating on the cartel represent a real problem. Beginning with the membership of what is now known as Division I-A, we determined the final sample size by eliminating those schools for which observations on one or more of the independent variables were missing.

winning record is rising, or with a lag after it has ceased player payments and started to lose. In any event it is the variance of winning percentage that drives enforcement. The square of the coefficient of variation, CV^2 , controls for a diminishing effect of winning variability on enforcement actions.

DC is another variable that is an indirect indicator of cheating. It controls for teams that have switched conferences and have also won conference championships. Both of these events serve as an additional signal that a school is a potential violator. On the one hand, if a switcher previously competed successfully either in some other conference or as an independent football power, its new conference opponents will suspect that the earlier winning records were related to rule violations. This will be especially so if the switcher rapidly achieves success at the expense of its new rivals (the University of Arizona and Arizona State University in the Pacific 10 Conference and the University of Houston in the Southwest Conference are examples of teams that were put on probation soon after changing conferences or becoming conference members). On the other hand, a champion that withdraws from a conference, especially after having been penalized, will be suspected of carrying its illegal behavior to the new competitive venue. In both cases the combination of mobility and success raises the probability that the NCAA's "competitive balance" is being disturbed. DC is therefore expected to have a positive sign—an increase in DC will lead to a higher probability of probation, all else equal.

SCPOP proxies the cost to cartel members of directly monitoring competition for inputs. An obvious way for schools to achieve a higher winning percentage is to recruit the best players from secondary schools. In a state with more secondary schools the difficulty of directly monitoring recruitment practices across universities is increased. Because of this increased monitoring cost, schools in those states will violate the rules more often, other things the same. The coefficient on SCPOP will have a positive sign because more cheating will lead to a higher probability of detection.⁵

5. Schools obviously recruit across state borders, blurring the effect captured by this variable. It is nonetheless useful to try in some fashion to control for the costs of directly monitoring rivals, and this is the best proxy that could be devised.

The variable STAD proxies the demand for football under the assumption that stadium sizes have adjusted to the demand for seats. A common problem in cartels is that individual members often have different demand-cost configurations. In the NCAA a school that faces a relatively higher and more inelastic demand for its football program has more incentive to pay athletes an above-the-cartel wage. The higher and the more inelastic the demand for its football program, the more likely a school is to engage in cheating because the gains are higher. More cheating leads to a higher probability of detection, *ceteris paribus*; therefore, STAD will have a positive sign.

The AGE variable is a proxy for the number of alumni of a school. AGE is also an indicator of the demand for football and a proxy for the amount of cheating taking place. An older school has more alumni and more football tradition. As the pool of alumni and their loyalty becomes greater, the demand for better football performance increases and becomes more inelastic. One way for a college to increase its chances of establishing or maintaining a winning football program is for a supporter to give payments and other perquisites (jobs, cars) to recruits and players. Older schools will be prosecuted more, other things equal.

Equation (1) is estimated by means of a logit analysis. This technique constrains the predicted values for the binary dependent variable, ENFORCEMENT, to fall between 0 and 1.⁶ The results are reported in table 17. All of the explanatory variables are significant at the .05 level for a two-tailed test.⁷ Although the coefficient of multiple determination is biased downward in this type of analysis relative to a model with a continuous dependent variable, the logit estimation of equation (1) accounts for 33 percent of the variation in enforcement actions across schools. This percentage is quite high given the aggregated and pooled nature of the underlying data.

6. The LOGIT procedure of SPSS^x was used, which transforms the log odds ratio to produce values similar to those derived from the probit model. The response function is given by $\ln p/(1 - p)2 + 5$. See *SPSS^x User's Guide* (1986, p. 605).

7. Equation (1) was also estimated with a probit model. The results are nearly identical to those reported in table 17.

TABLE 17
LOGIT Analysis of NCAA Enforcement Actions

Variable	Coefficients/(t-statistics)
Constant	-25.60964 (-2.461)*
CV	29.08742 (2.267)*
CV ²	-33.37897 (-2.273)*
DC	0.52742 (2.145)*
SCPOP	0.20829 (3.023)**
STAD	0.01161 (2.288)*
AGE	0.00002 (2.417)*
R ²	.325
N	85

Sources: Data on NCAA sanctions are from U.S. House of Representatives, Subcommittee Hearings, "NCAA Enforcement Program" (1978, pp. 1480-1520), and from the *Washington Post* (1978-83, various issues). Data on wins and losses, conference switching, conference championships, and stadium sizes are from *College Football U.S.A., 1869-1971* (1972, pp. 502-8) and from the *World Almanac* (1960, 1970, 1980). Data on the number of secondary schools are from *Digest of Education Statistics* (1962, various pages). Data on the founding date of schools are from *Universities and Colleges* (1982, various pages).

*Significant at .05 level for a two-tailed test.

**Significant at .01 level for a two-tailed test.

The coefficient of variation CV has a positive and significant sign. Higher variability in a team's winning percentage leads to a greater probability of the NCAA taking action against that school. This result supports the output monitoring hypothesis. The interaction term, DC, is positive and significant. Winning teams that switch conferences face a higher probability of sanction by the NCAA. This result suggests that rival teams use conference switching and quality performance as a signal of illegal activity. The dispersion of secondary schools, SCPOP, also has a positive and significant influence on NCAA sanc-

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tions. If there are few high schools, college teams and their agents can monitor each other's recruiting activities directly, at less cost, and thereby can discourage cheating. If there are many high schools, the costs of monitoring college recruiting increase, and the likelihood of cheating and sanctions increases. The proxies for demand for a school's football output, STAD and AGE, are both positive and significant. Other things equal, schools with a higher demand for successful football programs are penalized more than schools with a lower demand for football programs.

Independent schools are not members of conferences. Notre Dame, for example, is an independent school that recruits nationally rather than regionally. This makes it more costly for regional schools to monitor Notre Dame's recruiting behavior in other parts of the country. Moreover, conference schools have less of an incentive to monitor independents because they do not compete directly against them in conference play. Thus, independents may be less likely to be convicted of violations. We estimated the logit model in equation (1), including a dummy variable, IND, equal to 1 if a school is an independent and 0 otherwise. The results were

$$\begin{aligned}
 \text{ENFORCEMENT} = & -24.45 + 29.27\text{CV} - 33.74\text{CV}^2 + 0.52\text{DC} \\
 & (-2.38) \quad (2.16) \quad (-2.15) \quad (2.14) \\
 & + 8.13\text{SCPOP} + 0.01\text{AGE} \\
 & (2.94) \quad (2.17) \\
 & + 0.2e - 4\text{STAD} - 0.03\text{IND} \\
 & (2.36) \quad (-0.06)
 \end{aligned}$$

IND has a negative but insignificant coefficient. This suggests that independents are monitored carefully in recruiting competition by schools in the areas where they recruit; that is, being an independent adds no useful information to the cartel enforcement process.

In sum, these results support the hypothesis that the NCAA and its member schools use indirect or probabilistic information in order to apprehend violators of the monopsony agreement.

Perennial Winners

An additional question of interest is whether traditional winners are prosecuted at a lower rate. Several variables were used to measure traditional winning, including national television

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appearances, mean winning percentage, and top twenty appearances. The results in each case are similar. Below, the results are reported when national television appearances are added in the estimation of equation (1):

$$\begin{aligned}
 \text{ENFORCEMENT} = & -25.65 + 24.16\text{CV} - 28.50\text{CV}^2 + 0.50\text{DC} \\
 & (-2.43) \quad (1.77) \quad (-1.87) \quad (2.03) \\
 & + 8.63\text{SCPOP} + 0.3e - 4\text{STAD} + 0.012\text{AGE} \\
 & (3.07) \quad (2.37) \quad (2.32) \\
 & - 0.20\text{NATTV} \\
 & (-0.83)
 \end{aligned}$$

When measures of traditional winning for a team are added to equation (1), the probability of NCAA enforcement does not increase significantly; the other results are basically unchanged. This suggests that NCAA enforcement does not bother itself with either consistently successful teams or with teams that never win. If NCAA enforcement were driven by the desire to detect violations wherever they occur, and winning and violations are positively related, consistent winning would be, *ceteris paribus*, an indirect indication of cheating on the cartel agreement. Nonetheless, consistent winners are no more likely to be convicted of violations than are consistent losers. In fact, when the traditional winning measures are used in place of the coefficient of variation in equation (1), the measures have a marginally negative effect upon enforcement. This suggests that consistent winners may be prosecuted at a lower rate than other schools. In support of this result at a more descriptive level, appendix 2 displays the number of times each school in our sample has been in the final top twenty teams over the 1953–83 period and whether or not they have been put on probation. The teams appearing in the final top twenty the most often are not the most heavily sanctioned. It is the teams that have more variable records that are sanctioned more, a result which suggests that the NCAA enforcement process favors perennial football powers.

A Closer Look at Probation

The level of aggregation of the logit analysis obscures two features of NCAA enforcement that are of interest. First, does variation in winning percentage lead *directly* to enforcement? Second,

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is enforcement *effective*, that is, does it cost the school success on the playing field? In other words, what can be said about NCAA enforcement with respect to an improving team hypothesis?

In figure 2 the mean winning percentage of detected violators, running from five years prior to the start of probation (t) to five years after, is plotted. The winning percentages of these schools increased, on average, over the five years prior to probation and one year into probation. The latter result is plausible because illegally acquired recruits will continue to impact team quality during the early part of a probation. One year after probation begins, the average winning percentage of detected violators starts to decline and continues to decline through year $t + 4$.

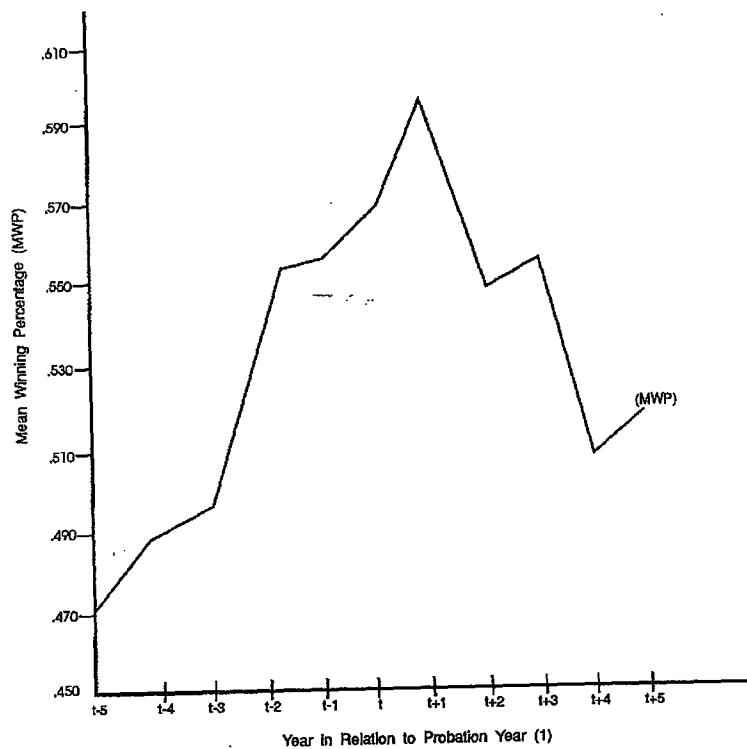


FIGURE 2
Winning Percentage of NCAA Violators

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Some recovery from the effects of probation is evident during the fifth season after the sanctions were put into effect.

Table 18 summarizes the changes in mean winning percentages for the teams placed on probation and those that have not been punished by the NCAA. Overall, the mean winning percentage of detected violators increased by more than 12 percentage points from $t - 5$ to $t + 1$. The change in winning percentage over this interval is significant at the 1 percent level and represents an approximately 26 percent increase in the winning percentage of the teams put on probation. Crime pays. By comparison (see bottom of table 18), the average six-year change in mean winning percentage for schools not placed on probation is -0.0015 percent.⁸ The difference between the six-year change in mean winning percentage for the two groups of schools is significant at the 5 percent level.

The data for the postsanction years ($t + 1$ to $t + 4$) suggest that enforcement actions decrease the mean winning percentages of detected violators. Over this period the mean winning percentage of detected violators falls by almost 8 percentage points. This decrease is significant at the 5 percent level. It is also different from the mean of the three-year change in winning percentage for no-probation schools at the 5 percent level. Thus, for a team that goes 8-3 in year $t + 1$, probation will, on average, lead to a 7-4 record in subsequent seasons. The addition of one game to a team's loss column may not seem important, but the difference between 8-3 and 7-4 is substantial in terms of bowl games, television appearances, recruiting, and national ranking.⁹

8. The calculations for the no-probation schools are derived as follows. WINPCT is the average winning percentage of all schools in the sample not placed on NCAA probation. WINPCT_{t-1} is generated by taking the average of the one-year lag of year-to-year winning percentages for each of these schools. WINPCT_{t-2} and so on are derived in the same way, and thus (WINPCT - WINPCT_{t-1}) and so on are self-explanatory.

9. As an example, take the Oklahoma football program, which was placed on probation by the NCAA for the years 1989 and 1990. For 1989, the Sooners were ineligible for television and postseason appearances. For 1990, the Sooners were ineligible for postseason bowl games. It was estimated that Oklahoma could lose \$5 million the first year and \$3 million the following year due to their violations. Because of revenue-sharing agreements, the Big Eight, of which Oklahoma is a member, also stood to lose revenue as a result of Oklahoma's probation.

TABLE 18
Changes in Mean Winning Percentage Based on NCAA Enforcement Actions

		Probation		No Probation	
		Mean	S.D.	Mean	S.D.
WINPCT _{t+1} - WINPCT _{t-5}	.1231	.266	WINPCT _{t+4} - WINPCT _{t+1}	-.0795	.290
WINPCT _{t-4} - WINPCT _{t-5}	.0163	.231	WINPCT _{t+2} - WINPCT _{t+1}	-.0485	.271
WINPCT _{t-3} - WINPCT _{t-4}	.0067	.226	WINPCT _{t+3} - WINPCT _{t+2}	-.0075	.257
WINPCT _{t-2} - WINPCT _{t-3}	.0574	.244	WINPCT _{t+4} - WINPCT _{t+3}	-.0313	.133
WINPCT _{t-1} - WINPCT _{t-2}	.0063	.229	WINPCT _{t+5} - WINPCT _{t+4}	-.0295	.208
WINPCT _t - WINPCT _{t-1}	.0171	.271			
WINPCT _{t+1} - WINPCT _t	.0204	.186			
WINPCT - WINPCT ₋₁	-.0009	.020	WINPCT - WINPCT ₋₄	-.0001	.028
WINPCT - WINPCT ₋₂	-.0017	.024	WINPCT - WINPCT ₋₅	-.0002	.024
WINPCT - WINPCT ₋₃	-.0013	.029	WINPCT - WINPCT ₋₆	-.0015	.025

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Recidivists

Three schools in our data were repeat offenders (Houston, Kansas, and Southern Methodist). In general, the results for recidivists are the same as before. Upward variability leads to probation and then to poorer performance with a lag. More specifically, figures 3, 4, and 5 provide illustrations of the impact of enforcement on the three recidivists. In a simple yet revealing way, these figures support the story of winning variability and enforcement. Such cycles in NCAA enforcement against schools are predictable. One-time offenders will be watched more closely than other schools, especially if they start to win again. The recent discussion by the NCAA of radical penalties for repeat offenders (canceling athletic programs for specified periods) indicates the degree to which the cartel is willing to go to suppress the rise of new football powers. Indeed, there has been more than discussion. As mentioned previously, the NCAA dismantled the SMU football program.

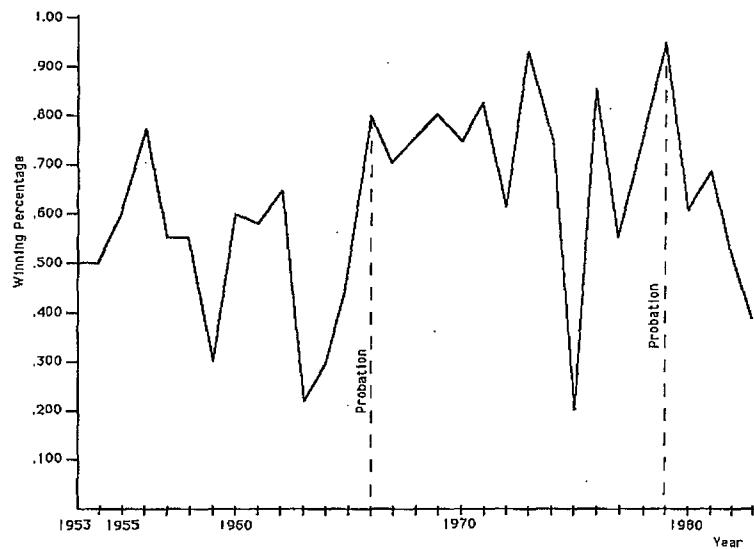


FIGURE 3
NCAA Repeat Offenders: University of Houston

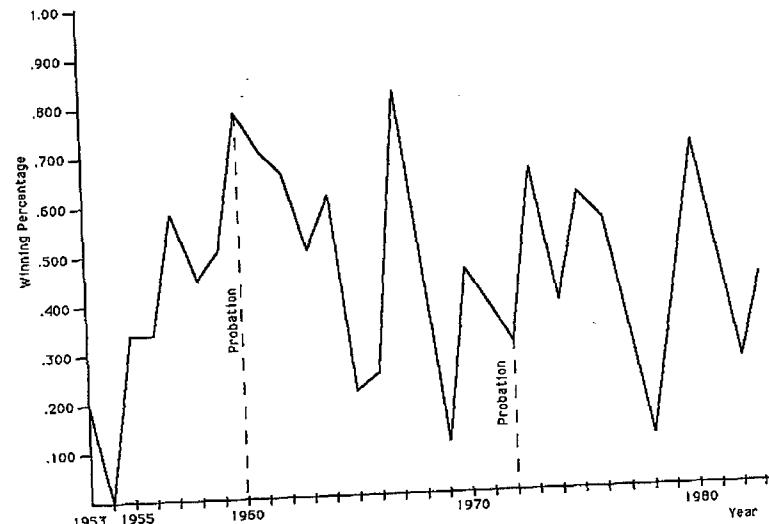


FIGURE 4
NCAA Repeat Offenders: University of Kansas

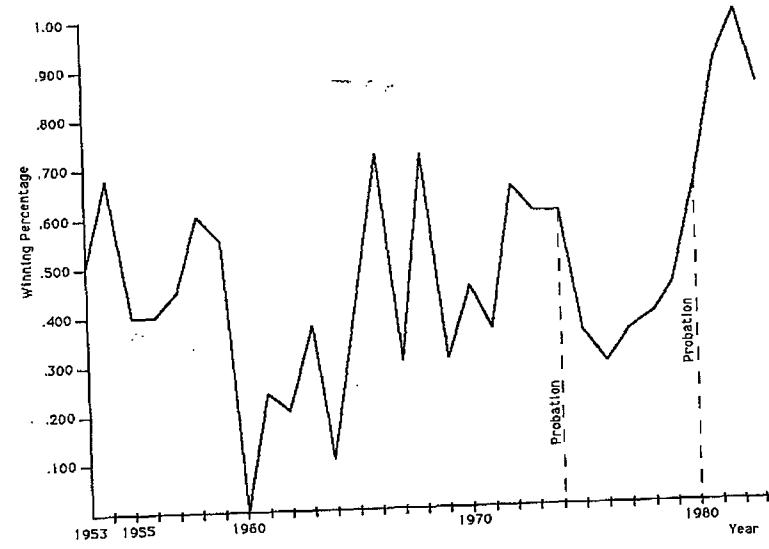


FIGURE 5
NCAA Repeat Offenders: Southern Methodist University

Contrasts in Enforcement

The logit model and descriptive statistics paint a consistent picture of the differential impact of NCAA enforcement policies. In addition to this evidence, a wealth of anecdotal evidence supports the same conclusion. For those who believe that statistical methods are intended to hide rather than clarify reality, these particular episodes provide a sort of common-sense case for the enforcement theory.

Contrasting various enforcement actions by the NCAA may be the best way to present this evidence.¹⁰ The most insightful case occurred several years ago. Ohio State (a traditional power in college athletics with strong ties to long-time NCAA executive director Walter Byers) was found to have given cash gifts and outside aid to athletes in the mid-1950s. Moreover, the Ohio State football coach, Woody Hayes, was alleged to have conducted a continuing loan fund for athletes. In 1956, the school received only an official "reprimand" from the NCAA. In contrast, during the mid-1960s, Illinois operated an almost identical fund for athletes. In spite of self-reporting its violations and being a first-time offender, Illinois received a major, two-year penalty. Curiously enough, Illinois won the Big Ten title two years after starting the secret fund. Later, in the mid-1970s, Michigan State received three years' probation and reduced television appearances for the same type of infraction.

The dominant power in college basketball during much of the 1960s and 1970s, UCLA, was found guilty of certain infractions in the mid-1970s. The violations included cosigning of loans and erroneous eligibility certification. (Additionally, it later became close to common knowledge that alumni support of athletes had been rampant at UCLA during its winning years.) In spite of direct monetary infractions and fraudulent behavior, UCLA received only a reprimand and a minor, one-year probationary period. Over the same general period, the NCAA found Western Kentucky University and other Ohio Valley Conference schools guilty of a number of serious violations. In 1973, Western Kentucky received two years' probation with no television appearances allowed; in 1974, the NCAA

10. This evidence is from the U.S. House hearings, table on enforcement actions, and Jenkins (1967).

placed the entire conference on probation. Again, it is interesting to note the timing of these sanctions. Western Kentucky made it to the NCAA Final Four in 1971, placing third and, en route, soundly defeated one of the dominant powers in NCAA basketball and its in-state rival, the University of Kentucky.

The Southwest Conference during the mid-1980s provides an example of more recent intracartel struggles. Almost all the schools in the conference found themselves on some type of probation, the major exception being the University of Arkansas, a traditional football power. Also, although the University of Texas was placed on probation, its penalty essentially amounted to only a one-year restriction on off-campus recruiting. This resulted in spite of rumors that a Texas tailback was driving a new BMW. In contrast, SMU received the "death penalty" for cash gifts and numerous other violations. Even more telling, Texas Christian University received a multiyear probation, had to repay about \$800,000 in revenues, and had its new scholarships drastically cut. The NCAA levied this penalty even though Texas Christian was not a repeat offender, it self-reported its violations, and it suspended several players for almost half of the season when the violations were discovered. SMU rose to prominence in the conference in the late 1970s and early 1980s, finishing in the top three in the nation in 1983. Texas Christian enjoyed its most successful season in decades the year prior to its being investigated.

Finally, consider the NCAA's defense of its enforcement process. One defense used in the 1978 congressional hearings centers on the supposed breadth of NCAA enforcement actions. At the hearings the NCAA supplied a list of enforcement actions which purported to show that the large, traditional powers were punished along with the lesser powers. The case of Kentucky illustrates the weakness of this defense. Kentucky did receive basketball sanctions in 1989, but only after a long and documented history of violations. In addition, the sanctions levied against the traditional powers have often amounted to a harmless slap on the wrist, as table 19 shows. It presents the NCAA's own list from the congressional hearings and separates out several enforcement actions against six of the traditional powers. This list includes the Ohio State penalty discussed earlier. This evidence reinforces the argument that,

TABLE 19
Enforcement Actions against Six Traditional Athletic Powers

Institution, Year	Violations	Penalty
Ohio State, 1956	Outside aid to athletes, cash gifts; improper inducements	Reprimand
North Carolina, 1961	Excessive entertainment of prospects; outside aid	1 year probation*
Texas, 1965	Excessive entertainment of prospects, plus cash and meals	1 year probation*
Arkansas, 1965	Entertainment infractions; inducements; out-of-season practice	1 year probation*
Notre Dame, 1953	Football/basketball tryouts; coach signing and providing grant-in-aid forms	Reprimand
Alabama, 1964	Improper conduct	Reprimand

*No television restrictions.

while enforcement actions may proceed against the college athletic powerhouses, they hardly fall into the category of major penalties.

One particular school requires special consideration. Some may question our theory on the basis of what happened at the University of Oklahoma. Although this school is a perennial winner and has been among the top revenue generators since about 1970, it has found itself on the receiving end of the NCAA enforcement process several times. Is Oklahoma an anomaly? Even though it is a large revenue producer, Oklahoma fits the enforcement theory put forward. In terms of the post-Sanity Code period, Oklahoma is an "up and comer." It has belonged to a conference, the Big Eight, which was originally targeted as a noncomplying conference. Moreover, even in its region, Oklahoma is a new entrant in big-time football. As late as the mid-1950s, the Southwest Conference denied Oklahoma's request for admission. Also, as Oklahoma grew in power and prestige, a well-publicized feud developed in the 1970s between the coaches at arch-rival Texas and those at

Oklahoma. Much of the animosity grew out of the large number of Texas high school players who chose to play at Oklahoma. For such reasons, Oklahoma can be seen as a maverick school in the NCAA, which has, however, been successful in spite of the NCAA's efforts to keep it down.

3. Concluding Remarks

This chapter draws from the model of enforcement outlined in chapter 2 and tests a theory concerning the methods that the NCAA and its member schools use to detect violations of its monopsony agreement. This process is guided by the use of probabilistic evidence. The cartel infers and investigates illegal practices by individual schools by looking at their athletic performances on the field. Much variability of performance leads to suspicion and enforcement. The results also suggest that the enforcement of NCAA rules and regulations has a redistributive impact. Teams with consistently high winning records are not prosecuted more than other teams, even though consistent winning could also be interpreted as an indirect signal that violations are taking place. This fact, coupled with the result that teams with volatile winning records are prosecuted more heavily, suggests that up and coming teams (new entrants to the ranks of the winners) are turned in and set up for probation by consistent winners.

In drawing the inference that NCAA enforcement activities benefit the perennial football powers at the expense of up and coming teams, the authors are not suggesting that most or all of the member schools engage in illegal recruiting practices but that only a few are ever substantially penalized. An alternative interpretation of the evidence we have considered is that the major college football programs, such as those of Alabama, Michigan, Notre Dame, Ohio State, and Penn State, have developed such strong winning traditions over the years that cheating may not be required for them to maintain their dominant position. These schools are able to attract superior high school athletes season after season at the cartel wage with the offer of a package of complementary inputs. Their well-equipped training facilities, quality coaching staffs, talented teammates, national television and media exposure, and so on, increase the present value of an amateur football player's

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future professional income relative to the value added by historically weaker programs. Given this factor, along with NCAA rules that mandate a uniform wage across member schools yet allow for differences in capital stocks, the traditional football powers have a built-in competitive advantage in recruiting the best athletes. Accordingly, the traditional nonpowers—Clemson, Colorado, Oklahoma, Texas A&M, Texas Christian, and Minnesota, for instance—have an incentive to break the cartel rules if they are ever to achieve gridiron success.

Although our empirical analysis does not distinguish between these two alternative views of the world, it is worth pointing out that NCAA enforcement activities have the same effect in both cases. Whether the observed pattern of sanctions is due to the fact that the NCAA has turned a blind eye to the violations of some of its members but not others or to the fact that only some members have actually violated the rules is irrelevant to the conclusion that NCAA enforcement activities have served to maintain the status quo, benefiting the perennial football powers at the expense of their rivals.

SIX

NCAA Academic Requirements as Barriers to Entry

Two of the more controversial rules passed by the NCAA in recent times are the requirement of minimum scores on college entrance examinations by potential college athletes (known originally as Proposition 48) and the prohibition on offering scholarships to incoming freshmen declared "partial qualifiers" under Proposition 48 (known as Proposition 42). The story of the enacting of these two rules by the NCAA was outlined in chapter 3. The strongest criticism of Propositions 48 and 42 has centered on the racially biased consequences of the academic requirements; many more blacks than whites have failed to meet the minimum scores.¹

There are essentially two competing explanations of Proposition 48. NCAA executives and the representatives of member

1. In a recent survey by the NCAA, in which 206 Division I institutions participated, the number of partial qualifiers in all sports was found to have increased between 1987 and 1988. A partial qualifier is ineligible in the first year of college to participate in his or her chosen sport. In 1988, of the schools that participated in the survey, 562, or 5.1 percent, of their freshman athletes were classified as partial qualifiers. This is an increase from 4.5 percent in 1987. In terms of the racial breakdown of the data, 97.8 percent of white freshmen were deemed qualifiers in 1988 while only 85.5 percent of black freshmen were eligible. Of those blacks who were partial qualifiers or nonqualifiers (14.5 percent), 66 percent were categorized as such because they failed to achieve the minimum score of 700 on the SAT. Another 19 percent did not score the minimum SAT score and did not attain the required 2.0 grade point average in the core curriculum (*NCAA News*, March 15, 1989, pp. 1-2).